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(71) Applicant (for all designated States except US): **W. R. GRACE & CO.-CONN** [US/US]; 62 Whittemore Ave, Cambridge, Massachusetts 02140 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHUN, Byong-Wa** [KR/US]; 84 Roundwood Road, Newton, Massachusetts 02464 (US). **JEKNAVORIAN, Ara, A.** [US/US]; 4 Percheron Road, Chelmsford, MA 01824 (US). **PORTENEUVE, Charlotte, B.** [FR/US]; 24 Mount Vernon Street, Boston, Massachusetts 02108 (US).

(74) Agents: **LEON, Craig, K.** et al.; 62 Whittemore Ave., Cambridge, Massachusetts 02140 (US).

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(54) Title: **GLUCONATE BROTH FOR CEMENT AND CONCRETE ADMIXTURE**

(57) Abstract: Methods and compositions of the invention involve the use of crude intermediate fermentation broth, derived from industrial glucose fermentation processes prior to completion of purification steps, as additives and admixtures for cementitious compositions.



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